<u>Amendments To Claims</u>

Claims 1-10 (cancelled).

11.   (Previously Presented) A method for coding a set of
numbers represented by a set of bit-planes having an
arrangement between a highest and a lowest significance,
comprising the step of generating a bit stream that describes
a current one of the bit-planes in terms of a tree structure
having a hierarchical arrangement of leaves such that the
leaves of the tree structure are described in the bit stream
in an order that is determined by an arrangement of zero
values in a tree structure for the bit-plane having a next
higher significance wherein the step of generating a bit
stream comprises the step of generating the bit stream such
that each leaf in a maximum depth of the tree structure for
the current one of the bit-planes that corresponds to a leaf
having a zero value in the tree structure for the bit-plane
having the next higher significance is described in the bit
stream before the leaves of the tree structure for the current
one of the bit-planes that do not have a corresponding leaf in
the tree structure for the bit-plane having the next higher
significance.

12.   (Previously Presented) The method of claim 11, wherein
the leaves of the tree structure for the current one of the
bit-planes that do not have the corresponding leaves in the
tree structure for the bit-plane having the next higher
significance are described before each leaf in a shallow depth
of the tree structure for the current one of the bit-planes
that corresponds to a leaf having a zero value in the tree
structure for the bit-plane having the next higher
significance.

13.   (Previously Presented) The method of claim 11, wherein

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the step of generating a bit stream comprises the step of generating a set of significance information in response to the tree structure for the current one of the bit-planes.

14. (Previously Presented) The method of claim 13, wherein the step of generating a bit stream further comprises the step of concatenating a set of refinement information with the significance information.

15. (Previously Presented) The method of claim 14, wherein the refinement information follows the significance   , information in the bit stream.

16. (Previously Presented) The method of claim 15, wherein the refinement information follows the significance information and precedes a set of significance information for a next lower one of the bit-plane having a next lower significance.

Claims 17-18 (cancelled).

19. (Previously Presented) A coding system, comprising:
    filter that generates a set of coefficients in response to an input image, the coefficients represented by a set of bit-planes having an arrangement between a highest and a lowest significance;
    encoder that generates a compressed image for the input image by generating a bit stream that describes each bit-plane in terms of a tree structure having a hierarchical arrangement of leaves such that the leaves of the tree structure are described in the bit stream in an order that is determined by an arrangement of zero values in a tree structure for the bit-plane having a next higher significance wherein the encoder generates the bit stream such that each leaf in a maximum depth of the tree structure for a current one of the bit-

planes that corresponds to a leaf having a zero value in the tree structure for the bit-plane having the next higher significance is described in the bit stream before the leaves of the tree structure for the current one of the bit-planes that do not have a corresponding leaf in the tree structure for the bit-plane having the next higher significance.

20. (Previously Presented) The coding system of claim 19, wherein the encoder describes the leaves of the tree structure for the current one of the bit-planes that do not have the corresponding leaves in the tree structure for the bit-plane having the next higher significance before describing each leaf in a shallow depth of the tree structure for the current one of the bit-planes that corresponds to a leaf having a zero value in the tree structure for the bit-plane having the next higher significance.

21. (Previously Presented) The coding system of claim 19, wherein the encoder generates a set of significance information in response to the tree structure for each of the bit-planes.

22. (Previously Presented) The coding system of claim 21, wherein the encoder concatenates a set of refinement information with the significance information.

23. (Previously Presented) The coding system of claim 22, wherein the refinement information follows the significance information in the bit stream.

Claims 24-25 (cancelled).

26. (Previously Presented) An apparatus for coding a set of numbers represented by a set of bit-planes having an arrangement between a highest and a lowest significance,

comprising means for generating a bit stream that describes a current one of the bit-planes in terms of a tree structure having a hierarchical arrangement of leaves such that the leaves of the tree structure are described in the bit stream in an order that is determined by an arrangement of zero values in a tree structure for the bit-plane having a next higher significance wherein the means for generating a bit stream comprises means for generating the bit stream such that each leaf in a maximum depth of the tree structure for the current one of the bit-planes that corresponds to a leaf having a zero value in the tree structure for the bit-plane having the next higher significance is described in the bit stream before the leaves of the tree structure for the current one of the bit-planes that do not have a corresponding leaf in the tree structure for the bit-plane having the next higher significance.

27. (Previously Presented) The apparatus of claim 26, wherein the leaves of the tree structure for the current one of the bit-planes that do not have the corresponding leaves in the tree structure for the bit-plane having the next higher significance are described before each leaf in a shallow depth of the tree structure for the current one of the bit-planes that corresponds to a leaf having a zero value in the tree structure for the bit-plane having the next higher significance.

28. (Previously Presented) The apparatus of claim 26, wherein the means for generating a bit stream comprises means for generating a set of significance information in response to the tree structure for the current one of the bit-planes and means for concatenating a set of refinement information with the significance information.

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